

ABSTRACT OF DISCLOSURE

The present invention relates to method and apparatus for suppressing a DC component of coded sequence with no additional bit for suppressing a DC component, and for decoding the coded sequence. The present modulating method modulates a source data twice based on a first mapping table and a second mapping table wherein the first mapping table contains coded data corresponding to the source data and the second mapping table contains at least one coded data, capable of suppressing low frequency components, to which at least one source data among all source data contained in the first mapping table is mapped, selects one of the modulated data based on at least one among the conditions of the value of a previous source data, whether low-frequency suppression has been conducted or not, the value of subsequent modulated data, and whether or not RLL constraints are violated, and records the selected one onto an optical recording medium. The present demodulating method demodulates a channel data detected from an optical recording medium using a plurality of de-mapping tables in which a decoded data corresponding to the channel data is contained.